Amendments to the Claims

Claims 1-9 **(Canceled)**

Claim 10 **(Currently Amended)** A storage-type data broadcast service system for transmitting a first transport stream constituting at least one content and containing a plurality of packet data having a program clock reference as reference clock information when reproducing the content, at a second transfer rate different from a first transfer rate, which is determined by the reference clock information, and extracting the plurality of packet data composing the content from the transmitted first transport stream to generate and store a second transport stream, the storage-type data broadcast service system comprising:

a transmitter for transmitting the first transport stream of the plurality of packet data composing the content at the second transfer rate; and

a receiver for receiving the transmitted first transport stream and detecting a transfer rate ratio between the first transfer rate and the second transfer rate to generate the second transport stream based on the detected transfer rate ratio,

wherein said receiver comprises:

a program clock reference extractor for extracting the program clock reference contained in the first transport stream;

a system time clock recoverer for recovering, based on the extracted program clock reference, a system time clock which is a processing reference clock for the packet data;

a program clock reference correction factor calculator for detecting the transfer rate ratio based on two contiguous extracted program clock references, and deriving, based on the detected transfer rate ratio, a correction factor for correcting the extracted program clock reference so as to match the second transfer rate; and

a program clock reference corrector for correcting the extracted program clock reference to correspond to the actual transfer rate ratio based on the derived correction factor, and

wherein said system time clock recoverer is feedback-controlled to recover the system time clock based on the corrected program clock reference.

Claim 11 **(Currently Amended)** A storage-type data broadcast service system for transmitting a first transport stream constituting at least one content and containing a plurality of packet data having a program clock reference as reference clock information when reproducing the content, at a second transfer rate different from a first transfer rate, which is determined by the reference clock information, and extracting the plurality of packet data composing the content from the transmitted first transport stream to generate and store a second transport stream, the storage-type data broadcast service system comprising:

a transmitter for transmitting the first transport stream of the plurality of packet data composing the content at the second transfer rate; and

a receiver for receiving the transmitted first transport stream and detecting a transfer rate ratio between the first transfer rate and the second transfer rate to generate the second transport stream based on the detected transfer rate ratio,

wherein the receiver comprises:

a program clock reference extractor for extracting the program clock reference contained in the first transport stream;

a system time clock recoverer for recovering, based on the extracted program clock reference, a system time clock which is a processing reference clock for the packet data;

a rate ratio calculator for deriving, based on the extracted program clock reference and the recovered system time clock, a correction factor for correcting the extracted program clock reference so as to match the second transfer rate; and

a program clock reference corrector for correcting the extracted program clock reference to correspond to the actual transfer rate ratio based on the correction factor, and

wherein said system time clock recoverer is feedback-controlled to recover the system time clock based on the corrected program clock reference.

Claim 12 **(Currently Amended)** A storage-type data broadcast service system for transmitting a first transport stream constituting at least one content and containing a plurality of packet data having a program clock reference as reference clock information when reproducing the content, at a second transfer rate different from a first transfer rate, which is determined by the reference clock information, and extracting the plurality of packet data composing the content from the

transmitted first transport stream to generate and store a second transport stream, the storage-type data broadcast service system comprising:

a transmitter for transmitting the first transport stream of the plurality of packet data composing the content at the second transfer rate; and

a receiver for receiving the transmitted first transport stream and detecting a transfer rate ratio between the first transfer rate and the second transfer rate to generate the second transport stream based on the detected transfer rate ratio,

wherein the receiver comprises:

a program clock reference extractor for extracting the program clock reference contained in the first transport stream;

a program clock reference specifier for causing said program clock reference extractor to extract, as a standard program clock reference corresponding to the actual transfer rate ratio, the program clock reference contained in the first transport stream and contained in packet data transferred at the first transfer rate; and

a system time clock recoverer for recovering, based on the extracted standard program clock reference, a system time clock which is a processing reference clock for the packet data.

Claim 13 **(Currently Amended)** A storage-type data broadcast service system for transmitting a first transport stream constituting at least one content and containing a plurality of packet data having a program clock reference as reference clock information when reproducing the content, at a second transfer rate different from a first transfer rate, which is determined by the reference clock information, and extracting the plurality of packet data composing the content from the transmitted first transport stream to generate and store a second transport stream, the storage-type data broadcast service system comprising:

a transmitter for transmitting the first transport stream of the plurality of packet data composing the content at the second transfer rate; and

a receiver for receiving the transmitted first transport stream and detecting a transfer rate ratio between the first transfer rate and the second transfer rate to generate the second transport stream based on the detected transfer rate ratio,

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wherein said transmitter comprises a transfer rate ratio appender for assigning the transfer rate ratio to the first transport stream,

wherein said receiver comprises:

a program clock reference extractor for extracting the program clock reference contained in the first transport stream;

a system time clock recoverer for recovering, based on the extracted program clock reference, a system time clock which is a processing reference clock for the packet data;

a program clock reference correction factor generator for extracting the transfer rate ratio from the first transport stream, and deriving, based on the extracted transfer rate ratio, a correction factor for correcting the extracted program clock reference so as to match the second transfer rate; and

a program clock reference corrector for correcting the extracted program clock reference to correspond to the actual transfer rate ratio based on the correction factor, and

wherein said system time clock recoverer is feedback-controlled to recover the system time clock based on the corrected program clock reference.

Claim 14 **(Currently Amended)** A receiver for receiving a first transport stream constituting at least one content and containing a plurality of packet data having a program clock reference as reference clock information when reproducing the content, at a second transfer rate different from a first transfer rate which is determined by the reference clock information, and extracting the plurality of packet data composing the content from the received first transport stream to generate and store a second transport stream,

wherein the receiver is operable to detect a transfer rate ratio between the first transfer rate and the second transfer rate, and to generate the second transport stream based on the detected transfer rate ratio, the receiver comprising:

a program clock reference extractor for extracting the program clock reference contained in the first transport stream;

a system time clock recoverer for recovering, based on the extracted program clock reference, a system time clock which is a processing reference clock for the packet data,

a program clock reference correction factor calculator for detecting the transfer rate ratio based on two contiguous extracted program clock references, and deriving, based on the detected

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transfer rate ratio, a correction factor for correcting the extracted program clock reference so as to match the second transfer rate; and

a program clock reference corrector for correcting the extracted program clock reference to correspond to the actual transfer rate ratio based on the derived correction factor,

wherein said system time clock recoverer is feedback-controlled to recover the system time clock based on the corrected program clock reference.

Claim 15 **(Currently Amended)** A receiver for receiving a first transport stream constituting at least one content and containing a plurality of packet data having a program clock reference as reference clock information when reproducing the content, at a second transfer rate different from a first transfer rate which is determined by the reference clock information, and extracting the plurality of packet data composing the content from the received first transport stream to generate and store a second transport stream,

wherein the receiver is operable to detect a transfer rate ratio between the first transfer rate and the second transfer rate, and to generate the second transport stream based on the detected transfer rate ratio, the receiver comprising:

a program clock reference extractor for extracting the program clock reference contained in the first transport stream;

a system clock reference recoverer for recovering, based on the extracted program clock reference, a system time clock which is a processing reference clock for the packet data;

a rate ratio calculator for deriving, based on the extracted program clock reference and the recovered system time clock, a correction factor for correcting the extracted program clock reference so as to match the second transfer rate; and

a program clock reference corrector for correcting the extracted program clock reference to correspond to the actual transfer rate ratio based on the correction factor,

wherein said system time clock recoverer is feedback-controlled to recover the system time clock based on the corrected program clock reference.

Claim 16 **(Currently Amended)** A receiver for receiving a first transport stream constituting at least one content and containing a plurality of packet data having a program clock reference as reference clock information when reproducing the content, at a second transfer rate different

from a first transfer rate which is determined by the reference clock information, and extracting the plurality of packet data composing the content from the received first transport stream to generate and store a second transport stream,

wherein the receiver is operable to detect a transfer rate ratio between the first transfer rate and the second transfer rate, and to generate the second transport stream based on the detected transfer rate ratio, the receiver comprising:

a program clock reference extractor for extracting the program clock reference contained in the first transport stream;

a program clock reference specifier for causing said program clock reference extractor to extract, as a standard program clock reference corresponding to the actual transfer rate ratio, the program clock reference contained in the first transport stream and contained in packet data transferred at the first transfer rate; and

a system time clock recoverer for recovering, based on the extracted standard program clock reference, a system time clock which is a processing reference clock for the packet data.